

KERAMIC STUDIO

Vol. VI, No. 7

SYRACUSE, NEW YORK

November 1904



NOW that the Autumn Competition is closed, we have decided to have monthly competitions instead of the semi-yearly ones. We think in this way we will obtain better results as the designer will have but one subject to consider and a second advantage will be the immediate publishing of the prize designs. The first monthly competition will close the fifteenth of January and be published in the March number. This delay is on account of the interruption of holiday work. The subject of the first competition will be found elsewhere in the Magazine under the head of "The Cicada."

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The awards for the Autumn Competition will be found in the Christmas number of KERAMIC STUDIO which we think will be unusually attractive. The supplement will be a prize design in color, and the Magazine will be filled with Christmas suggestions.

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The subject of Ceramics at the St. Louis Exposition will be exhaustively treated in KERAMIC STUDIO. If however, we attempted to cover the entire field the writer and the public would be exhausted long before the material, since every building on the ground held more or less of porcelain or pottery and the miles covered in walking from one exhibit to another were not more in extent than the pages it would take to tell it all. We doubt if an exhibition could be more badly arranged in respect to these special subjects than the St. Louis Exposition. The paintings and sculpture are mainly in one building, and a few other subjects are well grouped, but the porcelain and pottery exhibits were scattered all over the wide extent of the exposition ground—from Dan to Beersheba was a mere step, comparatively. The Sèvres exhibit in the French building, Copenhagen in the "Varied Industries", Rorstrand in the "Manufactures," little individual exhibits in the Art Palace, some in State buildings, some in the Educational building and still others in still more remote spots. So if by chance, some exhibit has been overlooked, it will not be an unforgivable offense.

We are waiting for some promised illustrations before beginning the articles but do not expect to wait long.

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LEAGUE NOTES

THE last regular Advisory Board meeting, held Friday, September 16th, at the Art Institute, was a typical Fall rally. The earnestness in which all the plans for the Winter and Spring were discussed, proved a singleness of purpose and the promise of eventual success. If all members would give the plan of education at least one thorough trial, they would satisfy themselves, and be just to this committee.

We have as members of our League, naturalistic painters of note, whose work is a credit to any exhibition. But we must remember that these artists have had years of preliminary

training in foreign countries before opening studios here. We, too, must have those years of training before we can hope for any degree of success.

The Trenton manufacturers have assured us that the bowl and vase will be procurable in plenty of time. As soon as word reaches us regarding them, we will advise league members. The motion was carried, however, to substitute shapes already on the market, in case of unnecessary delay.

Our local club has drifted along in a prosperous manner, acceptable to an uneducated public. We now, however, have been shaken out of our lethargy, and for the first time, have adopted the League study course. Our plan is, for each to work out the outline drawing for cup and saucer, Problem I, and submit it for criticism at our next meeting, Saturday, November 5th, at which time we will listen to a practical talk on design by a professional designer. In like manner, at the following meeting, the jar, Problem II, with criticisms and lecture by a professional potter. This plan will be continued until the end of the course.

We cordially invite all individual members, who have no available critics and are not willing to incur the expense of transportation, to send their work to be judged with ours. We will return it with the best criticism obtainable.

The Triennial report will reach you soon. We are still unable to get the correct names and officers of some clubs. The old lists have been printed and when the new elections are held, we will make corrections.

Mr. Albert Keith, treasurer of the N. L. M. P. is at present in Europe. He hopes to be at his studio again the last of November.

BELLE BARNETT VESEY,
President, N. L. M. P.

BRUSH WORK

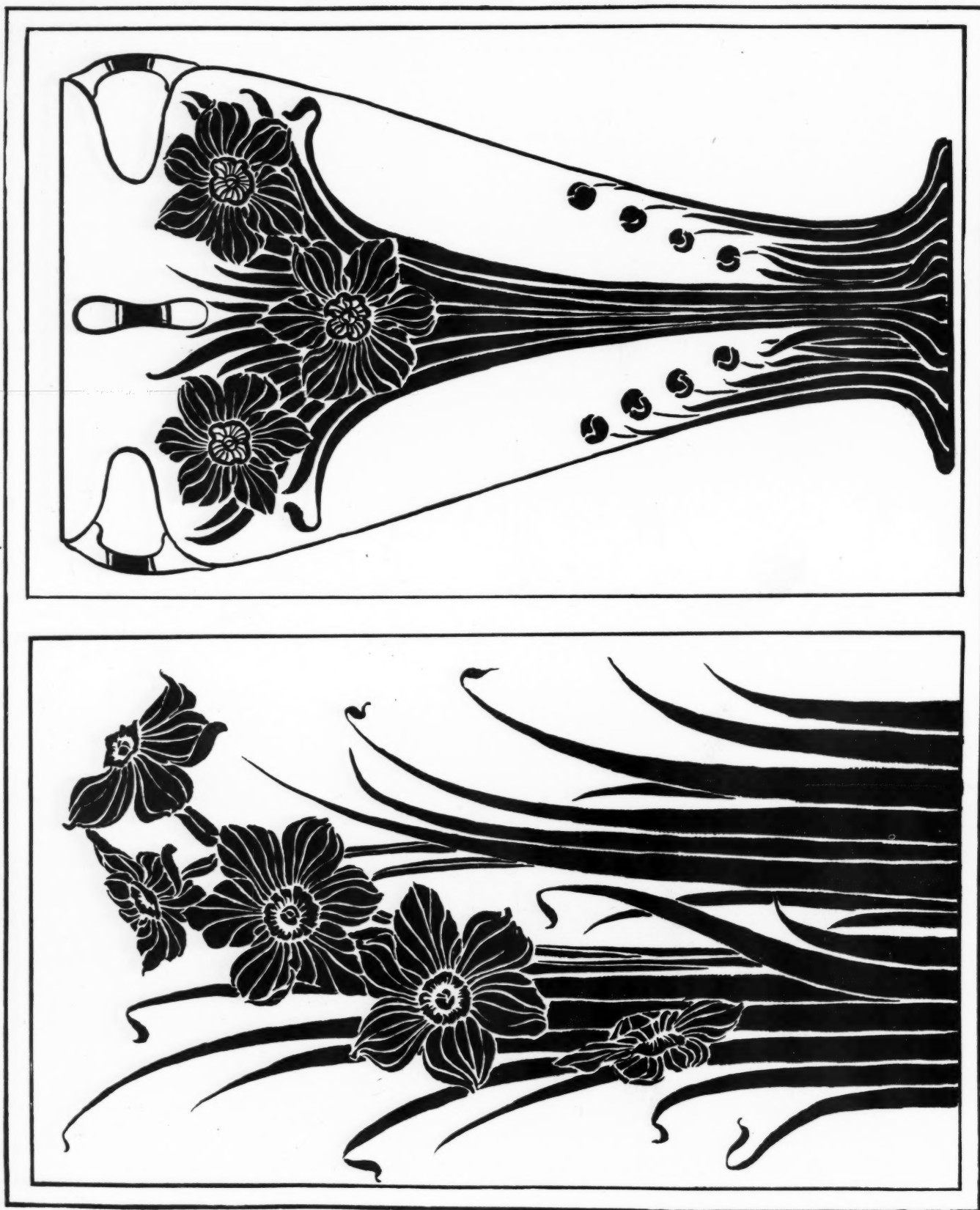
W. P. Jervis and F. H. Rhead

LESSON 4.

THIS lesson gives an example of a drawing from nature and the same flower conventionalized as a decoration for pottery.

Now that the student has had some little practice on simple strokes and forms, it is time to somewhat elaborate them. It should be a fixed rule with the students to make their own natural studies, for it not only teaches them more, but they do much more original work. However good a study may be it is useful only to teach and suggest, not to slavishly copy. It is altogether too prevalent a practice this watching out for studies by fashionable painters, and cannot be too strongly condemned. We repeat, make your own natural studies and put in them the best work you possibly can.

The first study is intended to be painted on tinted paper, if a dark dull brown or amber is obtainable. If not, use a good brown wrapping paper with a dull surface. This latter is necessary as the colors will be required to be opaque, preferably by the addition of a little Chinese white. Start first with the flowers, indicating their position only and omitting the detail. For these use gamboge with a touch of Indian yellow and



enough white to make the color opaque. For the leaves use olive green formed of Indian yellow and Prussian blue. White is only required in the green if the color of the paper is a very dense brown.

In drawing the leaves, choose the leaf pointing to the left hand corner, then the one pointing to the right, and these will act as guides for the rest. By the time the leaves are finished the centers of the flowers will be dry and the seeds may be touched with emerald green and the edge of the bell in vermilion. You can now line the edge of the study with a black border about one quarter inch thick. This will be found a quick and useful method for making studies for conventional forms and will bring out the originality of the student.

The vase is intended to be worked out in underglaze colors. The background is a pale yellow green, put on with a soft sponge. Flowers in white with yellow centers and crimson line around the edge of the belt. The leaves are olive green. Small flowers at base in crimson. Handles should be

in red brown with chocolate brown bands. Sponge the inside of vase with a darker green.

THE TEST

The basket weaver breathed a song,
And her heart was light as the day drew long;
As her work took shape 'neath fingers deft,
With its colors blended in warp and weft.
The potter sang, as with whirring sound,
The wheel he turned; and round by round
The senseless lump took shape and grew,
Transformed into beauty rare and new.
The woven fabric would you choose?
Or the child of the potter's brain and thews?
The one with its colors, smiling, gay,
Or the soul that rose from the lump of clay.
The fiery ordeal here on earth,
Is the proof of fleeting or lasting worth;
And the fabric must yield to the clay its due,
As it comes from the furnace tried and true.

D. R. L.



Tpsd.

MOCCASIN FLOWER—HENRIETTA BARCLAY PAIST

LAY in the leaves with a crisp green. The body or lip of the flower a clear bright yellow (Albert Yellow), the inside a soft green (White Rose). The petals are reddish (Sepia)

and the stamen spotted with the same. A pleasing background of lavender or grey (Copenhagen) helps to form a harmonious color scheme. Outline strongly.



GRAPE DESIGN—SARA WOOD-SAFFORD

GRAPE DESIGNS (Supplement)

Sara Wood Safford

THE same colors are used throughout the entire set of panels, the same purples, the same reds, the same greens, yellows and browns. The worker will observe in which drawing purple dominates, in which green, the violet-green and so on.

For the purple grapes make a deep purple with a dark blue two thirds, Ruby one third and a bit of black. Model clearly in the first painting, having strong light which may be lowered with a thin wash of blue in the second painting.

In the red grapes use Blood Red and Ruby mixed in the brush together—these also model clearly, and over some of the lights wash blue in the second painting. Yellow Brown and Yellow Red with Yellow Red and Blood Red are used in the warm and more brilliant clusters. Grey shadows for yellow grapes may be made of Violet and Yellow; deep shadows of Brown Green and Yellow Brown.

Yellow and Yellow Brown are used in warm background effects. Apple Green, Yellow Green, Brown Green, Shading Green and Dark Green may be used in the leaves and backgrounds, the light greens may be greyed with violet, then darker greens with the purple made for the purple grapes. The yellow with violet will lower tone of background where needed. Violet with red (Carnation) will produce red violet effects. Brown green with red (Blood Red) will produce warm brown tones.

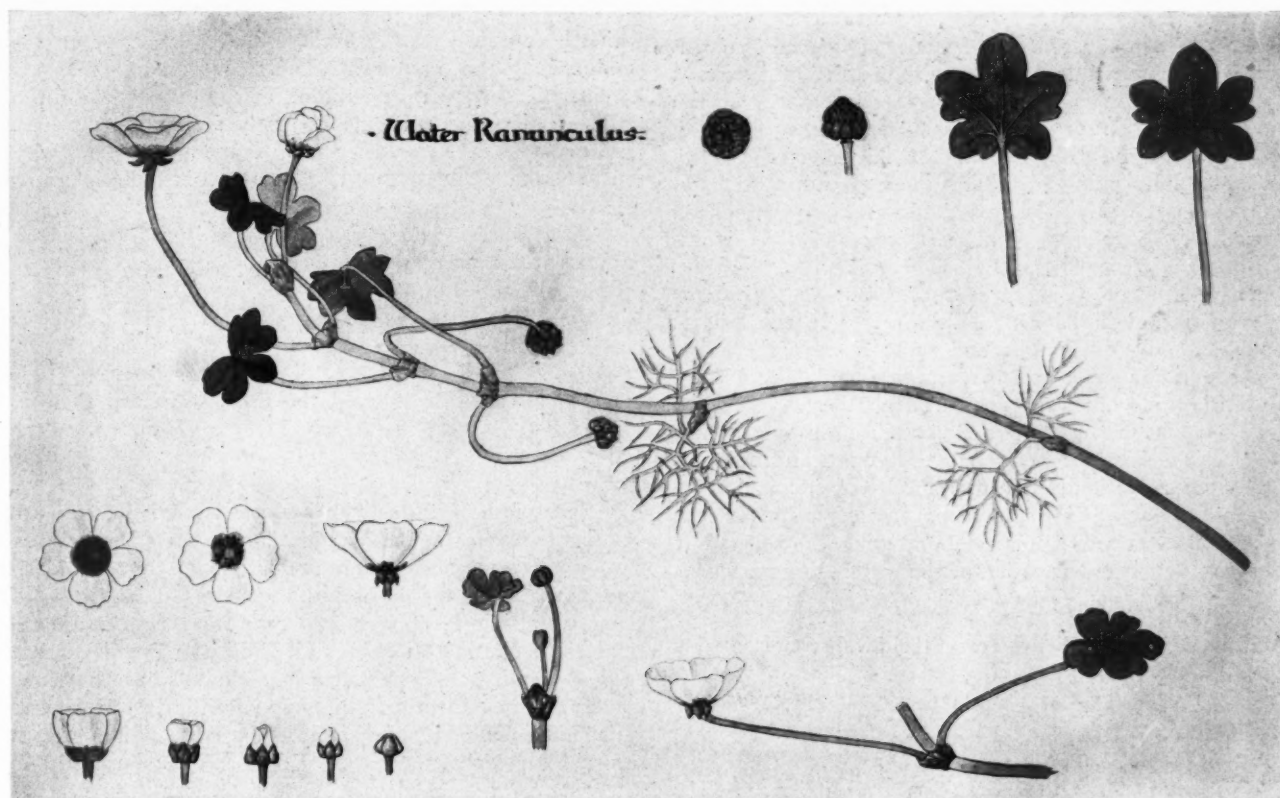
Paint in as simply and frankly as possible, being careful to get greys without getting muddy color. In the second painting lay the flat washes over grapes and background. In the third painting add what detail is necessary.

These color suggestions apply to larger drawings in black and white.

INDIAN POTTERY

A history of pottery in the United States would hardly be complete without mention of the pottery of the American Indian, inasmuch as the Indians are the only true Americans. The wandering tribes found by the first white settlers were merely savages, possessing only the rudest implements made of stone and a few vessels molded by hand from coarse clay, partially baked and of a crumbling nature. Of course, very few of these vessels are in existence at the present day, but there are two specimens in the historical collection in Pennsylvania. These were found in a cave in Pennsylvania about the middle of the present century. One is covered with small dents, probably made with a flint, and the other has quite an elaborate border of incised lines and notches. Clay pipes are found among the relics of Eastern tribes, often with a bowl shaped like the head of a bird or animal. Allusions are often made by early historians to the custom of smoking among the North American Indians. It is said that they smoked dry herbs which also satisfied hunger, and that they often went four or five days without food while smoking these herbs. Many of the pipes were made with separate bowls and stems, the stem to be inserted into the bowl when in use. In addition to clay vessels, the tribes inhabiting the region about the Great Lakes often used utensils made of birch bark. Sometimes they cooked their food in them by putting hot stones into the vessels with the food. The DeSoto explorers described the boiling of water by the Indians by means of dropping hot stones into jars of water.

Among the remains of the mound-builders are jars, basins, urns, etc., often molded in vegetable, animal, or human form, and ornamented in geometrical designs. Pipes were found among the relics of the mound-builders, many of them made of



WATER RANUNCULUS—BEATRICE BROOKS

stone, carved, showing a prodigious amount of labor. The mound-builders were evidently much more civilized and skilful than the eastern tribes.

The pottery of the Indians of the Far West may be divided into three styles:

1. The coil work made by coiling the soft clay like a rope around the vessel of wicker or a gourd. The surface was often indented with thumb marks, or covered with some fabric which would leave an imprint on the soft clay.

2. A ware painted red.

3. A whitish ware coated with clay and painted in designs of various colors.

Vessels of the first class were usually large urns designed to hold meal or the ashes of the dead. It is evident that the early Indians cremated their dead, because of the ashes found in these urns and also because human remains have not been found as might have been expected if the dead had been buried.

The second class, the vessels painted red, were of a more durable quality and were often burnished with smooth pebbles and painted with a design in black.

The third variety is far more common and is made of fine clay mixed with pounded shells or stones, and is superior to any ware produced by the native Indians. It is usually covered with a wash, polished and decorated, the figures being usually black, red, and yellow. The Pueblo Indians excelled in this pottery. They made mugs, pitchers, jars, urns, dippers, bottles, bowls, etc. Their mugs often had double handles. The interior of the bowls of the dippers were, in many instances, painted in elaborate designs. There were some combinations of the different styles, as a bowl of coil design might have an interior polished surface painted in geometrical pattern.

The Indian pottery may be divided into three classes, the useful, the æsthetic, and the grotesque; the useful, consisting of articles made for utility alone, with no attempt at decoration; the æsthetic often coming up to standards of beauty and art, as exemplified in the best work of the Pueblo Indians, but more especially in the product of the Indians of Central America (who were far more cultured than any other class of American Indians); and the grotesque, practiced to some extent by the Indians of all ages, but more by the Indians of the present day perhaps than at any other period. As the art of the white man is more or less impregnated with legend and mythology, so the ornamentation of the Indian vessels was often symbolical, and though of no meaning to our eyes, it was of deep significance to the Indian.

Thus we find at the discovery of America that the Indians varied greatly in civilization. While the Indians of the East were making only the rudest and most necessary articles, many of the Indian tribes of the West were producing pottery of an artistic and elaborate type. Art has been slowly but surely developing in the United States since Europeans first took up their habitation here, but the American Indian is practically where we found him five hundred years ago. The modern Indian continues to make pottery after the ancient methods, perhaps a little more elaborate in decoration, but with less regard to the protection of the ware.—*Boston Star*.



Andrew Carnegie is about to erect technical schools, among which will be a school of ceramics.



SHOP NOTE

The Ceramic Gold Co. of Brooklyn are putting up their gold in a porcelain slab with a depression to hold the gold. It seems a very good arrangement.

MATT GLAZES AT LOW TEMPERATURES

Charles F. Binns

IN a previous paper on matt glazes the temperature chosen was that at which the body itself could be fired. The minimum point for this purpose with ordinary potters' materials, cannot be below cone 1 and even this can only be accomplished with a very careful selection of clays. It often happens however, that natural clays are used in studios, clays which burn to a red color and such as are commonly used for brick making. There is no possible objection to the use of these clays, in fact there is every reason why such use should be encouraged. They are easily available, cheap and smooth to work. On the other hand there are not many such clays which will stand cone 1 heat. They will melt and collapse before this is reached. Consequently it becomes a matter of importance for those who are interested in the use of natural clays to be able to glaze their pottery at a fire which will not damage the ware itself.

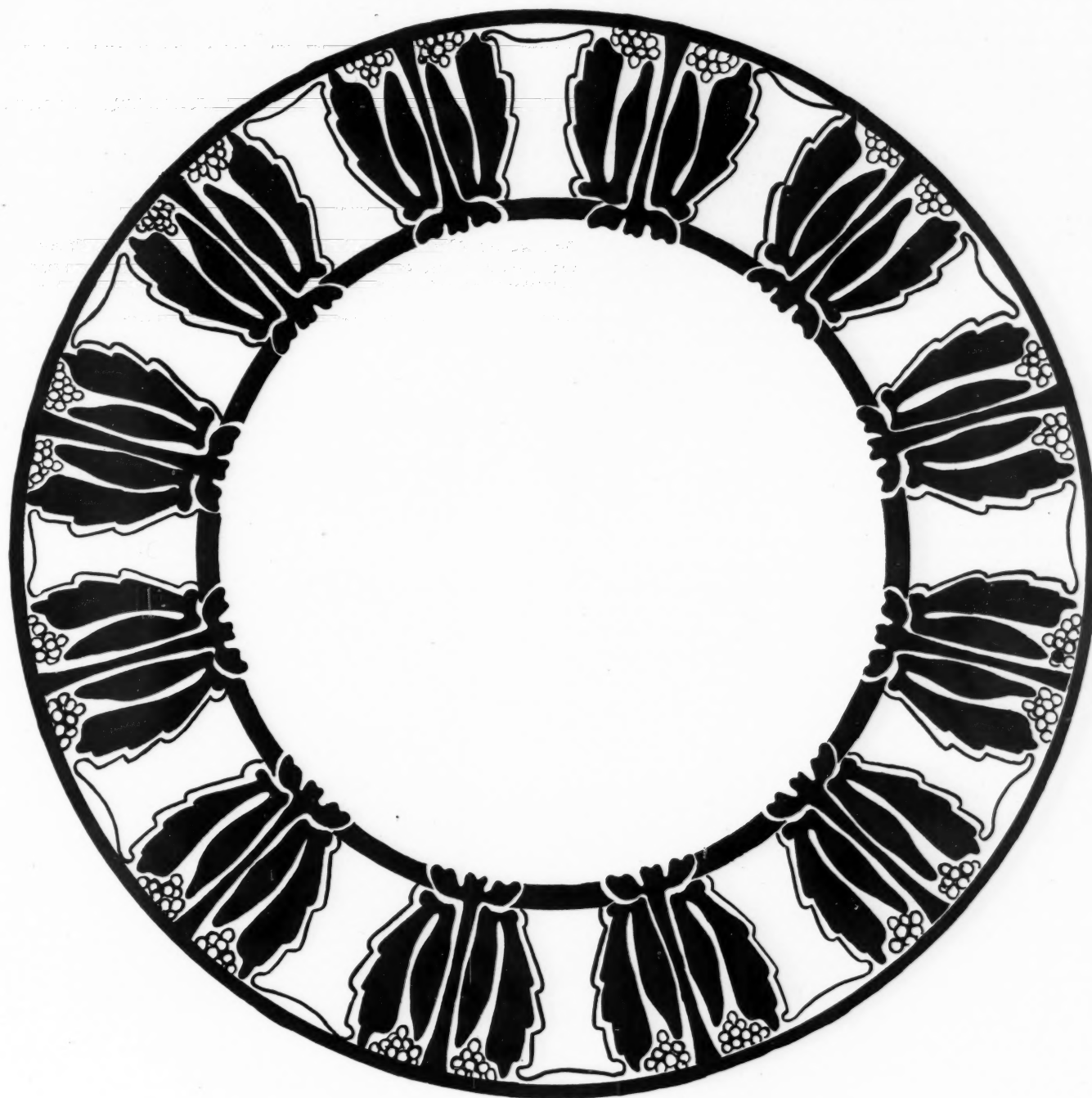
The great majority of common brick-clays will burn to a nearly vitrified body at heats ranging from cone 06 to cone 04 (1886° to 1958° Fahr.) and the glazes given for cone 1 will not fuse at these temperatures.

Perhaps some will remark, upon reading the previous sentence, that as we are talking about matt glazes the question of fusion is not important, but this is an error. It was demonstrated by the writer of this paper, early in 1903, that matt glazes are not dull by reason of infusibility but by virtue of a special chemical composition. If it were a question of producing an unfused glaze nothing would be easier, and the lower the temperature the better, but the problem is to compose a glaze which shall, at one and the same time, flow at a low fire and carry enough of the deadening materials to produce a texture. The chemical composition of matt glazes is much the same at whatever heat they are to be burned. The difference between a glaze at cone 04 and one at cone 2 is not the amount of flux which it contains but the kind of flux. The matt quality is produced by the alumina which is contained in feldspar or kaolin. The amount of alumina can only vary within very narrow limits if a good texture is to be secured, but unless the right flux or base be used for each temperature, the glaze will fail to combine and flow at the low fire, or will degenerate into a leathery mass at the high.

Two glazes are here given which will produce good matt surfaces at the melting point of cone 04 or about the heat of an ordinary brick kiln:

No. 10—White lead	50	No. 11—White lead	34
Whiting	9	Whiting	14
Feldspar	27	Kaolin	8
Kaolin	14	Feldspar	37
—	—	Flint	7
100	—	—	100

Each of these glazes will produce its own effect upon the coloring oxides so that they cannot be exchanged each for each. Two are given because all fires are not alike. Even if the same cone is used and the fire is just that which causes it to bend there is still a difference. Two important factors are to be taken into consideration in kiln firing, the first is time, the second, quality. If one burns one's own kilns the time is, usually, short. Burning a kiln specially for pottery consumes from six to eighteen hours but it is not every artist potter who owns a kiln. Sometimes one must depend upon a neighboring kiln where brick or tile are burned. These kilns take from eight to fourteen days to fire and the behaviour of the ware under such treatment must be radically different from what it



PLATE—MISS CATHERINE SINCLAIR

Design to be executed in grey blue.

would be in a studio kiln. The second point is the quality of the burn. Firing is a complex chemical process. The products of combustion passing through the firing chamber exert important influences upon the constituents of both body and glaze, and successful results depend upon the control of these influences.

For a quick burn glaze No. 10 is the more suitable, for a slow burn, glaze No. 11. In the use of matt glazes too much care cannot be taken to have a thick even coating of glaze. More trouble and dissatisfaction is caused by thin glaze than by anything else. In the mixing of the glaze it is not necessary to grind the materials. White lead and whiting are quite fine in their usual form. Clay or kaolin only needs to be freely mixed with water, and feldspar and flint can be bought ground from the dealers in potters' supplies or from wholesale chemists such as the Roessler & Hasslacher Company, 100 William Street, New York.

The mixture being weighed out the whole batch should be triturated in a mortar and passed through a sieve of 20 meshes to the inch. Water is added until a thin paste is secured free from lumps. The batch is now placed in a deep bowl and thoroughly mixed with a Dover egg beater or else is put into a "Christy improved mixer" (The Christy Knife Co., Fremont, Ohio) and worked until smooth. A mucilage must be supplied in order that the glaze may not crack while drying. The best mucilage is made from gum Tragacanth. A small handful of the gum, not powdered (about 1 oz.) is put into two quarts of cold water and steeped for 24 hours. At the end of that time the mass must be well worked with the egg beater or in the Christy mixer until free from lumps. More water is added if too thick but it is best to have a good thick gum. A few drops of carbolic acid or some other convenient germicide will prevent any offensive odor from developing. Taking the glaze from the mixer it should be set in a deep narrow jar, such as a Mason fruit jar, and allowed to stand and settle. All the clear water is then poured off and a tablespoonful of mucilage added to every 100 grammes of dry glaze in the mixture. Glaze so prepared can be kept indefinitely in an air-tight jar and will always be ready for use.

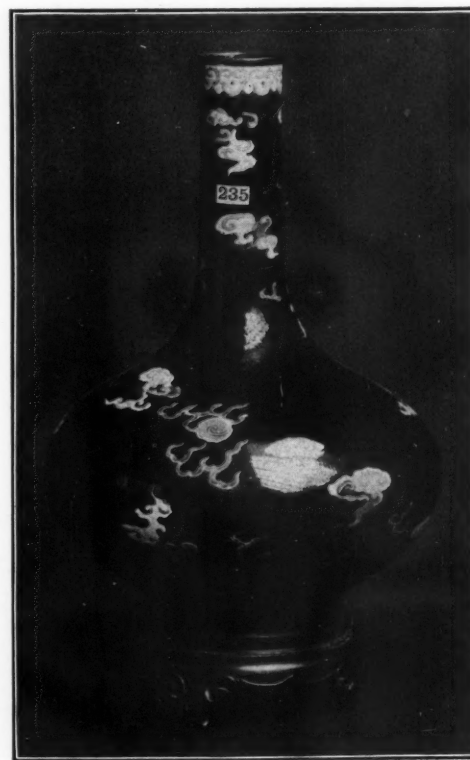
To glaze the pottery the whole batch of glaze should be emptied into a bowl and well stirred. The pottery is thoroughly saturated with clean water to prevent absorption and consequent irregularity and must be wiped dry from all surface moisture. The glaze, which should be as thick as a rich mayonnaise, is poured evenly over the ware which is then set aside to dry.

In preparing the piece for the kiln the bottom of each is sponged clean as to the edge, but the appearance of the under side will be improved if the glaze is left in the center. A connoisseur in pottery instinctively looks at the bottom of a piece and the clever worker will endeavor to have the bottom as well finished as any other part. There is an objection to the use of stilts in the kiln in that the three point marks are always in evidence. A better plan is to make circular supports out of a mixture of kaolin and flint. The size of these can be adjusted to each vase made and should be arranged so that the clean rim beneath the vase rests on a raised edge upon the supporting bat. The clay and flint mixture is so infusible that even if it adheres to the glaze it can easily be rubbed off with a piece of hard stone or a carborundum knife sharpener.

For coloring these glazes the usual metallic oxides, oxides of copper, cobalt, iron and nickel can be used. Cobalt oxide needs to be very finely ground for the strength of color is so great that even a small grain will produce a dark speck. If it be quite impossible to manage this the best plan is to use, not the

oxide but the nitrate of cobalt. This is soluble in water making a clear crimson liquid. A few drops of the solution put into the glaze mixture will produce the same effect as the oxide without the disadvantage of blue specks. The only objection is that the nitrate is rather more expensive. However, so small is the quantity necessary that the cost is scarcely noticed. The remaining oxides, copper, iron and nickel may be added to the glaze mixture and stirred in with the egg beater. For a light color the total amount of stain should not exceed one per cent, while three times this quantity is enough to produce a rich tone of color.

It may be well to add, for the information of any who have not read previous articles that copper produces green, to be modified in the direction of blue by cobalt and in the direction of yellow by iron; that nickel produces gray which can be modified in the same manner and that cobalt can always be relied upon for blue. Red is hard to secure but can be made with iron if the glaze is laid on in a thinnish coat over a light colored clay. Of course if a red clay be used for the pottery it may be left unglazed for the sake of the color.



Vase of White Chienlung Porcelain in Smithsonian Museum.

INDIAN GRASS

Kathryn E. Cherry

FIRST Fire:—Use Yellow and Blood Red pale for flowers; for shadow flowers use Blood Red and Violet. Leaves made of Moss Green, Brown Green, Shading Green and Black.

Second Fire:—Use Rose in high lights, Blood Red and Violet. Stems are Yellow Brown, Blood Red and darkest touches of Auburn Brown. Background, Violet, Yellow, Sea Green and Copenhagen Blue.



INDIAN GRASS—KATHRYN E. CHERRY



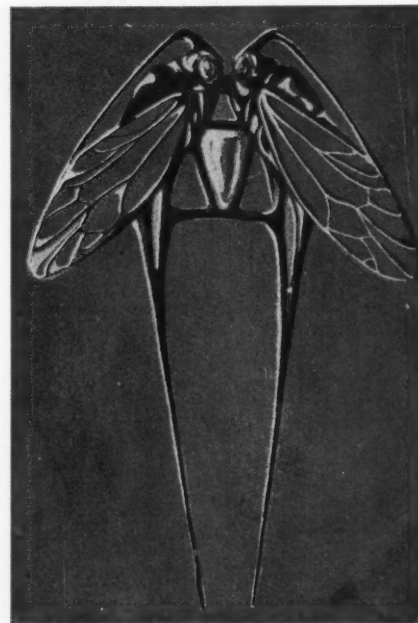
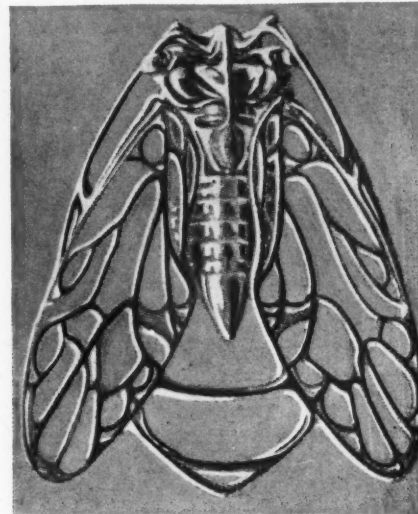
Mr. Dufrene.

THE CICADA

From Art et Decoration

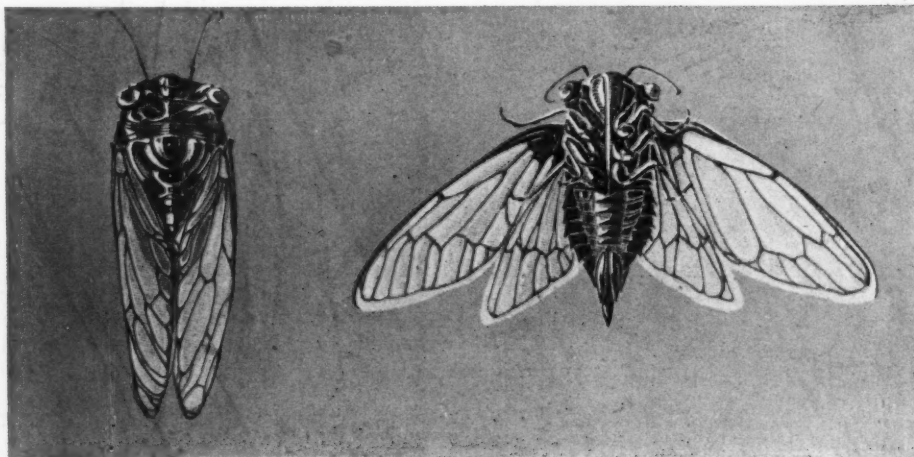
to be used is the Cicada in part or in whole. The first prize will be five dollars, the second prize, four dollars.

A careful study of the three detail drawings of "La Cigale"

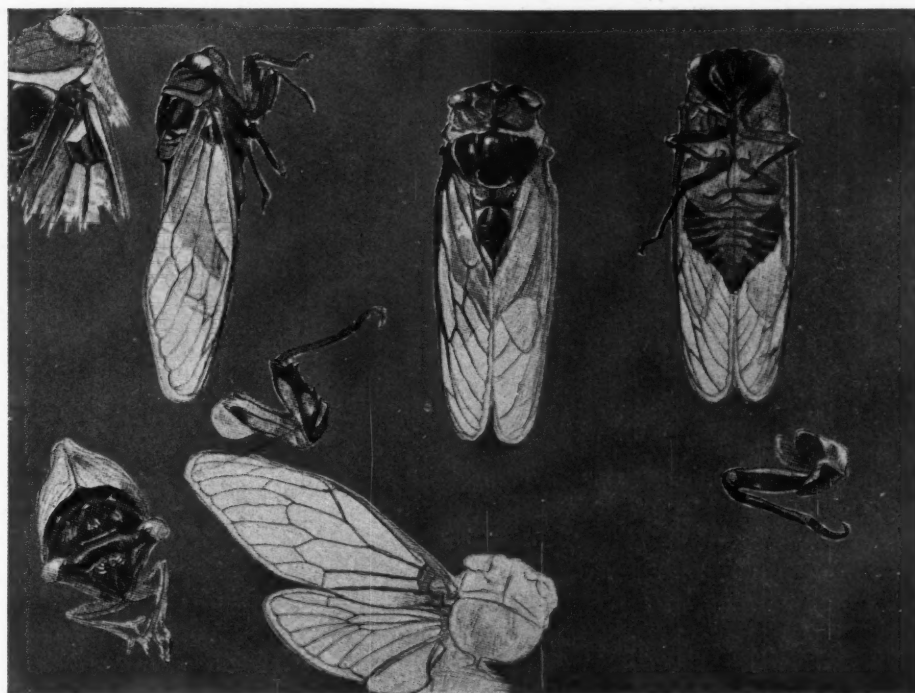


WE have selected from a French magazine, "Art et Decoration," some drawings of the Cicada or "La Cigale" as the motif to be used in the next design competition of KERA-MIC STUDIO. We have made this selection because, in the first place, the work is so well done, and in the second place, because so few of our designers seem to realize that the material for design is to be found all about us, not only in flowers and fruit, but in insects, animals, fish, landscape and the innumerable objects, little or big, to be had for the looking.

The problem for the March competition which will close January 15th will be to make a cup and saucer border not less than $\frac{1}{4}$ inch nor more than one inch wide, with or without supporting vertical lines of decoration of the cup. The motif



Mr. Benedictus.



Mr. Bellery-Desfontaines.

by the three French artists Dufrène, Benedictus and Bellery-Desfontaines, will illustrate well how differently the same object will look to different artists' eyes—yet all tell the same fundamental truths. The different styles of conventionalization of each artist show still more clearly how unnecessary it is to copy others' ideas to attain artistic results. It is this originality in seeing things that proclaims the artist.

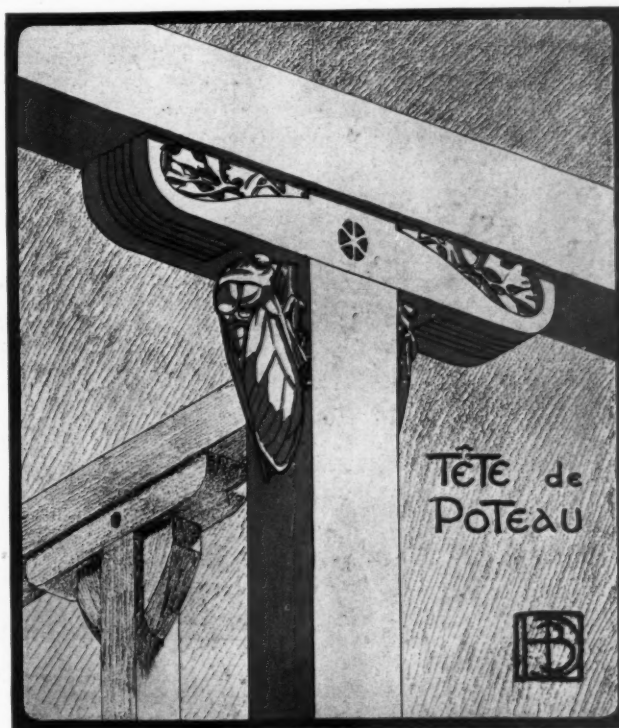
It would, of course, be preferable, if each designer could make his own study of the insect, but the time of year forbids, so, in order not to copy too closely the ideas of others he will

have to study all of these drawings and select the forms that appeal most to his sense of beauty and fitness, making his own conventionalization, profiting by the examples before him without servile imitation. It is interesting to note how M. Dufrène has made use of the leg and the head as motifs in wall paper patterns. "Everything is fish that comes to his net." Bellery-Desfontaines uses his motif in a semi-natural manner, while Benedictus skeletonizes his subject with admirable success.

Make your choice of these or other methods of conventionalization, "Every road leads to Rome."



Mr. Bellery-Desfontaines.



Mr. Bellery-Desfontaines.

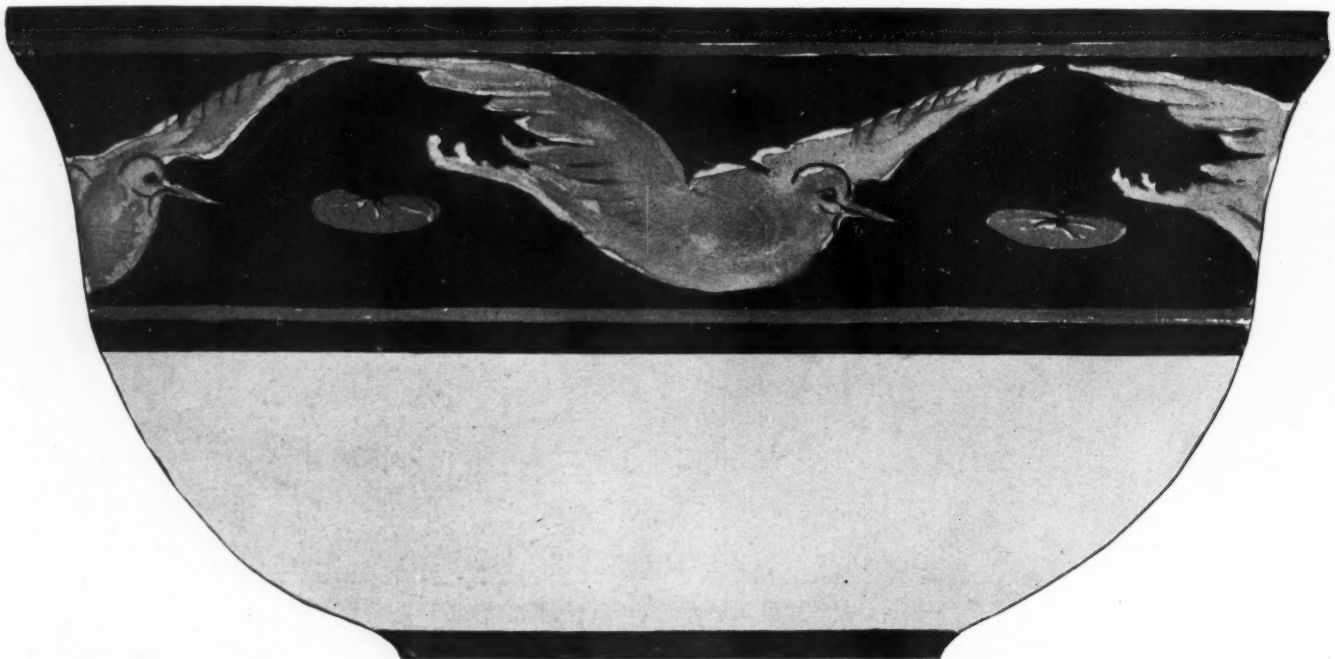


BONESET—MARGARET OVERBECK

FOR Water color use for background Indigo and Crimson Lake with a little Hooker's Green to subdue it. For leaves and stems, Hooker's Green and raw Sienna or Brown Pink. Flowers, slight wash of Yellow Ochre and Sapphire Green. Outline Indigo and Sapphire Green.

FOR MINERAL COLORS.

For mineral colors—Leaves and stems, Olive Green and a little Yellow Brown. Background Violet of Gold and Dark Green. Flowers very light tint of Jonquil-Yellow and Black. Outline Dark Green.



DESIGN FOR BOWL—MAZIE E. MURPHY

The dark portion of design is in Lacroix Dark Blue toned down with Purple and Black. Leaves and narrow bands Yellow Green toned down with Black. Light ground in light wash of Yellow Brown.



HAREBELL—EMMA A. ERVIN (Treatment page 156)



BOUNCING BET—MARGARET OVERBECK

A delicate pink flower with pale green stems and leaf, very effective against a blue grey background.

PEACOCK PANEL

Olive Sherman

THE blue ground color, also the green at the base of the study, are rich in color and depth. The clouds, also parts of the tail feathers are etched into the china, and then carried out with the application of gold. The whole form is outlined in black, using a broader line for the bird and limb, thus throwing into the distance the clouds. The bird is executed in enamels and lustre. For a deep green purple effect with lustre for the feathers, use coat of Rose then Gold, burnish highly, lastly a coat of Yellow. Silver lustre is used for the limb and on the bird between the enamel.

TANKARD (Page 159)

Blanche Van Court Schneider

PAIN'T the apples with Poppy Red for the first firing, and in the leaves, use warm greens, browns and yellows with Dark Brown and Ruby Purple in the stems. Keep the apples round.

Second firing—The background at the top of the tankard is Banding Blue toning into Shading Green, then into Poppy Red. This last color forms the ground on the other side of the tankard. The color under the main cluster of fruit is rich Poppy Red shading into Brown Greens at the base of tankard. Use a little Pompadour on the apples this time and paint in the blossoms ends with black. For the third firing, vein the leaves and accent all parts to make the piece look finished.



HAREBELL (Page 155)

Emma A. Ervin

I DOUBT if any reproduction could give this little flower the delicacy and beauty of its natural state, for it is one of the most graceful and dainty of the mountain wild flowers. The general color is quite blue, very near purple, and on examining them carefully you will find some flowers from even a delicate pink shading into deep purple. The wiry, dark green stalk stands erect except as the wind bends it so easily and gracefully.



BONBONNIERE DESIGN

Mrs. Alice Witte Sloan

THIS suggestion for a decorative treatment of the peacock motif for a bonbonniere top, can be effectively executed in lustres and gold with perhaps a few touches of enamels. Some combinations for peacock tones in lustre are as follows: Dark Green over Purple, Dark Green over Ruby, Yellow Brown over Green, Yellow over Blue Grey; for the ground a delicate tinting of Yellow over Rose would give a pearly sky effect. Black lustre as the body of the bonbonniere would be most effective.

L LEAGUE

NOTES

The Advisory Board of the National League of Mineral Painters held an all-day session, September 15th, at the studio of Mrs. Leonard. There were present Miss Fairbanks of Boston, Mrs. Doremus of Bridgeport, Conn., Mrs. Baisely of Brooklyn, Miss Montfort, Miss Hörlocker and Mrs. Leonard of New York. Mrs. Mary Alley Neal sent her proxy. Mrs. Worth Osgood, the President, occupied the chair, and under her guidance much business was put through, especially that referring to the Paris Exposition. The advisability of accepting the invitation from the Federation of Clubs to exhibit in Milwaukee in the spring was discussed, and it was decided that the officers of the League could not undertake the responsibility of another ex-

LUSTRES

STEEL BLUE, used alone, is one of the most striking colors we have. Painted on with a large square shader full of lustre and allowed to run thick and thin as it will, it gives a beautiful iridescent effect, being peacock blue and green where it is thick and ruby where thin. Padded, it is a steel blue grey with pinkish lights, and makes a good background for decorative flowers. This is still more effective as a background when it has light or dark green painted over it for the second fire. With yellow over it for the second fire, it has the effect of oxydized silver.

Can be dried in oven if not too hard, must not be too hard.



PEACOCK PANEL - OLIVE SHERMAN



BUNCH BERRY DESIGN FOR PLATE

FIRST draw a black outline of the entire design and fire it. Make the background and the edge design of Gold, leaving a black outline around edge design, filling the triangular space with flat black enamel; for leaves and stems, use light Green lustre; for flowers, flat White enamel with a center of

Yellow flat enamel; sepals of flat Apple Green enamel with a touch of black. In the third fire burnish the gold, shade the white and green enamels with green, the yellow center with yellow brown, cover the background with dark green lustre shading to dark, and strengthen the black outlines.



TANKARD—BLANCHE VAN COURT SCHNEIDER (Treatment page 156)

THE CRAFTS

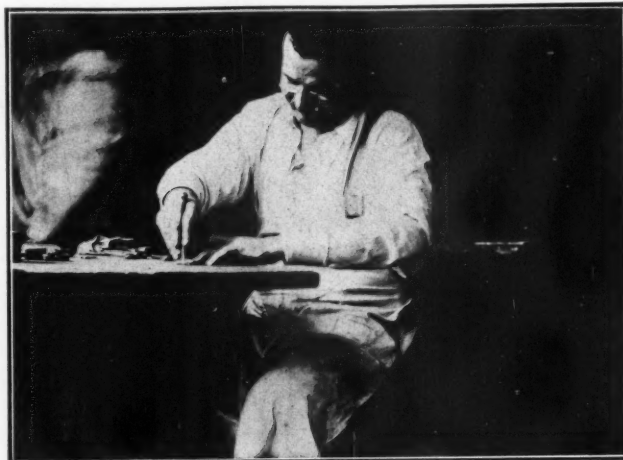
WOOD CARVING AND PYROGRAPHY. LEATHER AND METAL. BASKETRY, ETC.

Under the management of Miss Emily Peacock, 6 Brevoort Place, Brooklyn, N. Y. All inquiries in regard to the various Crafts are to be sent to the above address, but will be answered in the magazine under this head.

All questions must be received before the 10th day of month preceding issue and will be answered under "Answers to Inquiries" only. Please do not send stamped envelope for reply. The editors will answer questions only in these columns.



Workman leading a window.



Workman cutting glass with the wheel.

MAKING A STAINED GLASS WINDOW

Henry L. Parkhurst

THE making of a stained glass window is a very simple matter merely as mechanically manufacturing an article goes, and involves only a fair amount of mechanical skill to bring together the only two materials used, which are lead and glass. But when it is to be artistically made, it calls for something more than mechanical skill alone. And an opportunity is offered to the lead glazier to show an appreciation of the artistic value of line in design, by making a good selection of the different sizes and shapes of leads, and in putting the solder on the joints in a manner to help bring out the drawing besides holding the window intact firmly. He is also given an opportunity to show an appreciation of color in his work, for a good selection of glass is dependent upon it, and a good color sense is as important to him as it is to a painter.

I consider therefore, that all of the artistic side of stained glass work is of greater importance than the mechanical. By this I do not mean that any part of the practical work might ever be slighted in the least. It must rather be very well and thoroughly done, and the window must serve its practical purpose perfectly. But the main principle of stained glass work is an artistic one, and it is the obtaining of good results through the use of such an unyielding material as glass that is the wonderful part of it all, and not merely the mechanical matter of construction. Yet I find as a rule that it is the latter that excites the layman's interest and wonder more than the former; and I am making it a point to speak of this at first so as to correct this mistaken point of view if the reader should have it.

The method of making a window, and the materials used, have changed very little since the Mediaeval days; practically not at all. We still use the full size cartoon, and make patterns by which to cut the glass, and have the same shaped leads which are soldered together in the same way. A few small improvements have been made, and some new ways invented for making windows; but they are not largely used.

One of the improvements made in modern times is the

corrugating of the web of the lead to make it cling to the glass more firmly. Another is the use of tin floated over the surface of the leads to make them bright, and to add to their strength. One of the new ways to lead windows, is to cover the edges of the glass with very thin sheet copper, and then float over the joints with solder. Another is to use hard metal, zinc or copper, in the shape of raised leads, and solder the joints same as in regular leading. Some new shaped leads have also been made; and we now have the half round, the rectangular, the V shaped, and a few others more ornamental.

But still with all the little improvements and changes constantly attempted, and sometimes made successful, by far most of the work continues to be made in the old flat lead as it has been for ages. And probably a better method will not be discovered in many years to come, if ever discovered at all. For the lead, as used, is very flexible and easily handled, and it gives an artistic effect, and when puttied with putty that hardens, makes a strong window. So this article will be confined to the simple plain leading with flat leads.

Before describing the process of making a window, let us have a list of utensils and materials needed. First, the work should be done on a table about three feet wide and six feet long, made of pine, and having cleats on the back. This may be supported upon two wooden horses, or any support, as long as it is firm. The tools necessary are as follows:

A wheel (Fig. 1) and a diamond for cutting the glass (Fig. 2)

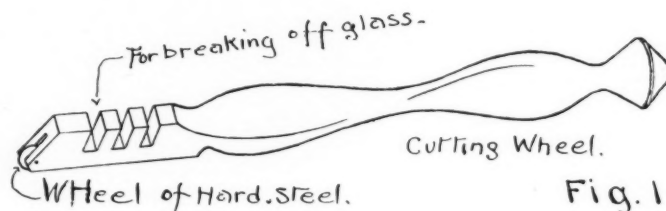
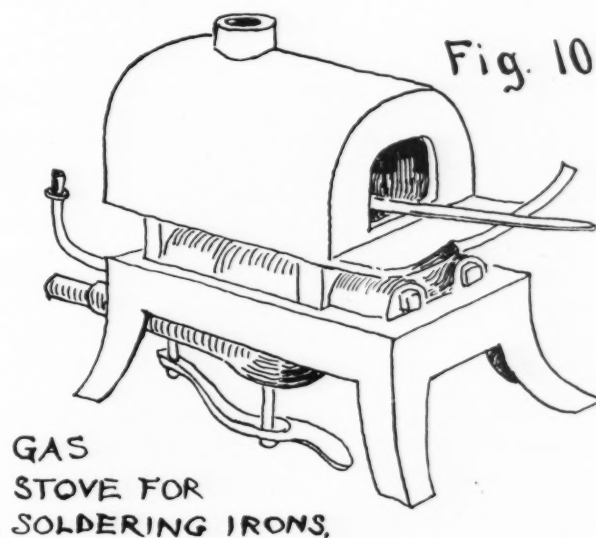
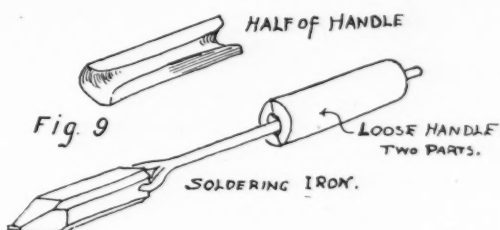
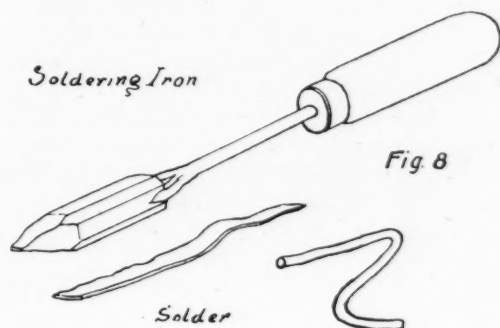
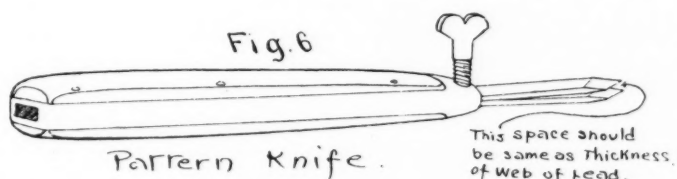
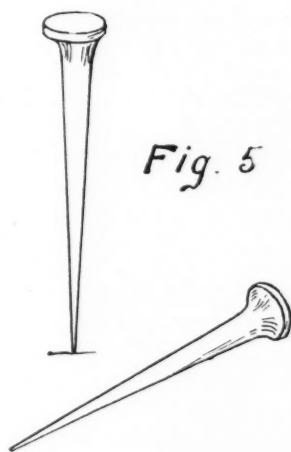
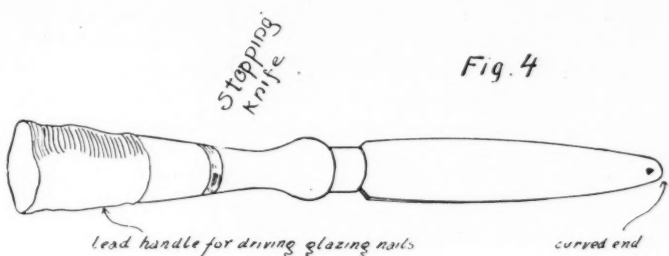
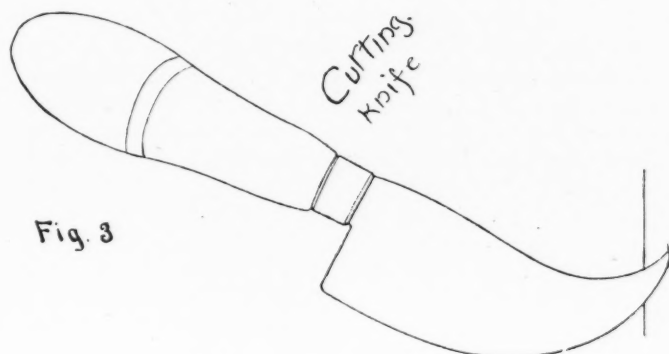
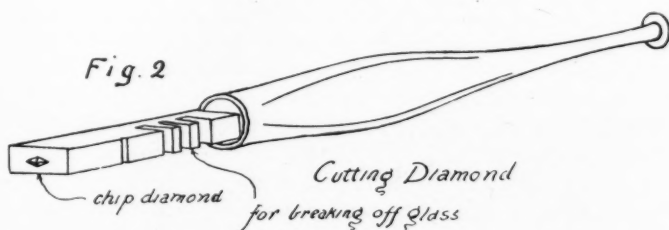


Fig. 1

The wheel for ordinary use, and the diamond for the hardest glass, and for cutting square lined pieces of clear glass. A

cutting knife to cut leads with (Fig. 3), and a stopping knife with which to press the leads and glass close together, and to drive in the leading nails (Fig. 4). Leading nails (Fig. 5). A

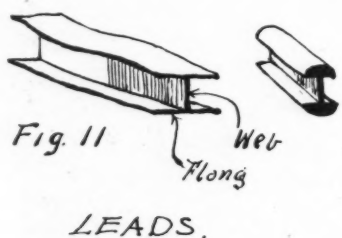
pattern knife (Fig. 6). A pair of plyers for grozing glass not all cut off by the wheel or diamond (Fig. 7). Two soldering irons (Fig. 8 and Fig. 9). A gas heating oven for the soldering



irons (Fig. 10). A cement brush, a pail for the cement (a four quart pail will do). A stubby house painter's brush, or a blacking brush will do for the cement brush. If you want to make windows for outside sashes or in fact anything larger than about two feet square, you will also need a carpenter's auger

and bit, large enough to bore holes for $\frac{1}{4}$ " rods, and a small detachable vise for the table to hold the sash in while you are doing this.

As for materials, you will want as follows: Manilla drawing and pattern papers, glass, lead, solder, powdered resin, or stearic acid, or parafine candles for soldering, putty, boiled linseed oil, white lead, whitening, and possibly copper wire, iron rods and small brads for placing the glass in the sashes. The stearic acid may be obtained at a candle factory and may be applied with a brush to a joint before soldering. The powdered resin will be found cleanest and probably most easily used. Of glass you will want quite a little more in square feet of each kind than you intend to use for any particular work. And the kinds that are most generally in use are, common clear window glass, cathedral glass, and opalescent glass. The cathedral glass is colored, and is all one flat tint, and comes in various colors. Opalescent glass also comes in various colors, but there may be a variety of tints, and colors, and combinations of colors in one piece, or it may be nearly one flat tint. Cathedral glass is semi-transparent sometimes, but opalescent is only translucent, and sometimes it is almost opaque. All glass comes in sheets and you have to cut out of the sheet what you want to use. Leads that are sold by the dealers are called Lead Cames (Fig. 11) and as sold are too heavy for leading a window, and you should have them run through a mill and



made thin. Solder comes in two forms; one round like heavy wire, and the other flat like a thick shaving.

The first thing to do in making a window, is to draw out your design; and if it is at all elaborate, or has any ornament requiring any study, it should be drawn at a small scale first; and if it is to be a colored window the scale drawing should be carefully colored. The effect of a design that is at all ornamental should always be studied in this way first, because in doing this you bring the whole more within your easy vision, and you do the same thing as putting your work away from you to see it at a distance. From your scale drawing make a full size drawing or cartoon. And in making this everything must be drawn out in full with care, and no part can be omitted without finding out eventually that you might better have drawn it. Even if the window contains nothing more than plain diamonds or squares, the whole must be drawn out in full. In establishing your full size, don't forget that there are two sets of sizes; the full or actual size, and the sight size. The full size is the dimension from the inside of the groove or rabbet in the sash into which the glass is set and puttied, and is the actual or over-all size of the piece of leaded glass. The sight size is the dimension of the opening in the clear from the inside edge of the sash, and gives the size of all the glass that is seen when put in the sash. The design should all come within this size.

When the first full size drawing or cartoon, which we will call No. 1, is made, it should be transferred to another sheet or

paper stiff enough to make patterns of. The paper used for drawings may be common manilla drawing paper unglazed. But that for the patterns will be better if glazed a little. After the pattern drawing is made, cut a pattern for each of the different shaped pieces of glass, using the two bladed pattern knife. One pattern will of course answer for those shapes that are repeated. Before cutting the patterns, don't fail to number them all, and copy the numbers correctly on the original drawing. When the patterns are all cut and the different kinds of glass selected for the window, begin the glass cutting and continue until all of it is finished, and do not try to lead your window until this is done. As you finish each piece, place it with its pattern in its proper place on the original drawing which should be spread upon the table for this purpose, and in this way you can keep track of what you are doing and avoid confusion and loss of the pieces of glass.

When working in colored glass, it is usually desirable to see the effect of the glass you are selecting as you proceed. And to do this you should have a sheet of rough plate glass as large as your window, or at least the portion of it that is colored. On this trace roughly the outline of your design, and place it upright in front of a window either upon the sill, or a board nailed across the opening for a shelf. As the pieces of glass are cut, stick them in their proper places on this glass screen or easel, with small bits of soft beeswax or other wax that is sticky and pliable. When they are taken down for glazing, all the wax should be carefully removed.

In cutting the glass, first cut out a piece roughly large enough to hold the pattern, and then holding the pattern firmly against it, cut around close to the edge using the wheel or the diamond. The wheel will often be found better for irregular shapes because it is more easily turned. The manner of holding the diamond or wheel is shown in one of the illustrations, and you will find it necessary to bear hard upon the glass so as to break through the outer surface. That part of the glass to be cut off can then be removed by using the plyers, or if your grip is strong enough you can do it with your fingers. But there is the danger of receiving a bad cut from sharp edges of the glass. If you do not use the plyers, use the slots in the wheel handle. Another and safer way to remove these portions is to tap the glass on the under side, striking directly under the cut line, and it will fall off. Sometimes it is impossible to remove the glass by any of these methods, and then you will have to groze or pinch it off a little at a time with the plyers. Be sure to take everything off up to the pattern line.

When all the glass is cut, prepare for the leading by tacking drawing No. 1 on the table, and nail wood slats about $\frac{1}{4}$ " thick and an inch wide around the edge. These slats should be laid perfectly straight and square, being at perfect right angles with each other at the corners, and the dimensions across the space they enclose should be the exact full size of the window. These slats are necessary to keep the work straight and confined to this size. The work of leading is done right on top of the drawing and you should begin at the near left hand corner, by placing across the end and along the side a heavy lead, say at least $\frac{1}{4}$ " wide. Place them full against the slats, and then begin with the corner piece of glass and the lead next to it, and then the next piece of glass and the next lead, and so on across the drawing diagonally until the whole is completed. As you proceed, keep the pieces of glass and the leads you have just put in place, firmly in their positions by driving the leading nails against them and into the table. These nails are to be taken out again of course when you place the next lead and glass.

TO BE CONCLUDED.

ANSWERS TO INQUIRIES

Bet.—White calf is delightful to work on, but be sure that you buy Sumach tanned skins, the alum tanned skin turns yellow, as soon as water touches it. Cow hide can be more deeply tooled than calf.

E. B.—Knives for cutting leather can be bought from almost any large hardware dealer and cost from twenty-five to fifty cents.

C. S. R.—Zinsser Bros., 197 Williams St., New York, sell a laquer for leather. There are different laquers for metal. Banana oil is one of them, this leaves a thin skin on the object laquered and excludes the air; but why use a laquer? there is nothing that gives such soft mellow tones as atmosphere.

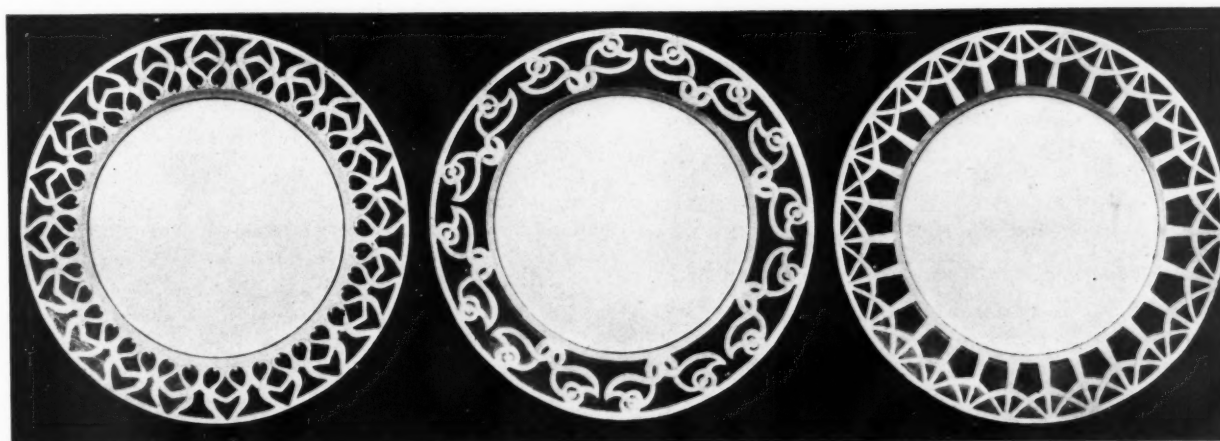
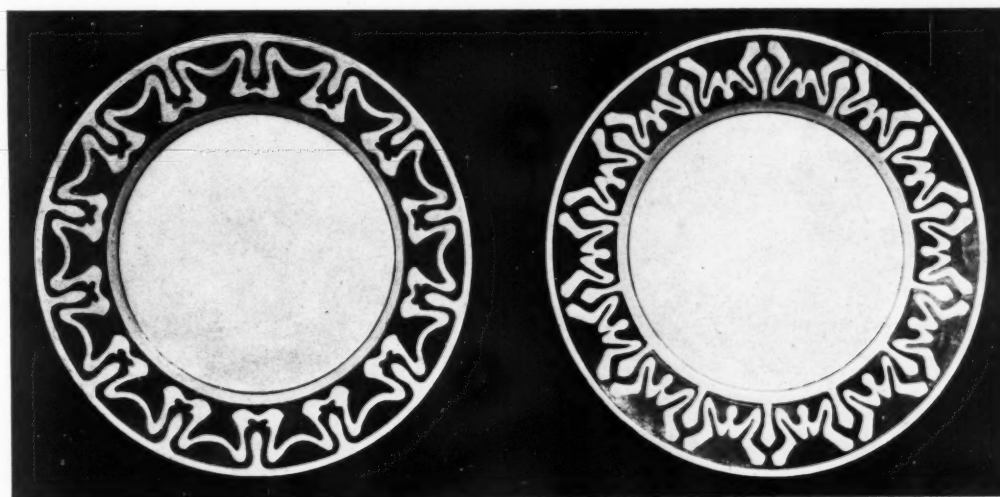
C. A. D.—For tooled leather work you will need some cowhide or calf-skin. (The cowhide is the heavier of the two, so more suitable for heavy tooling and carving.) Some small wedge shaped steel tools for outlining, different sizes, two or three background tools, a hammer and a stone to work on, a piece of marble will do. For instruction in this work look up Crafts Dept., May issue, 1903.

ANSWERS TO CORRESPONDENTS.

H. M. P.—For pink, use first a thin wash of Pompadour and in the second fire finish with Rose. Few pinks will come out of the fire without purplish tones if overfired. If your Dresden Yellow comes out with black specks and no other color does the same, we would say something is wrong with the color and you had better throw it away and buy a new one, if it comes out in the other colors we would think the fault was in the china or that the iron firing pot needed whitewash to prevent particles of iron spitting off on to the china. We can suggest no remedy unless it is possible to make an all over pattern of gold and enamel to cover the spots. If your gold comes off in burnishing it is either underfired or a very poor quality of gold.

Mrs. E. B. D.—The article on figure painting in last month's K. S. applies equally as well to miniature painting in mineral colors, the process is exactly the same.

R. R.—If your lustre comes spotted from the kiln, it is due to one of several reasons. If the spotting is due to too much turpentine in the outlining either use less turpentine or fire the outline before putting on the lustre. The spotting might be caused by dampness on the china from the hands; it is best to handle freshly dried lustre with an old silk handkerchief, use this to dust off the piece before firing, which will also prevent spots.



BLUE AND WHITE PLATES—EMILY F. PEACOCK

USE for the first fire grey blue colors all over the plate. For the second fire a second coat of grey blue over the rim only. For the third fire, use a medium dark blue flowing enamel in the background design, for the inner line, and on the

outside edge of the plates. These border designs could be adapted to metal, for bowls and trays especially where etching is used. Also for carving in low relief on wood, for bread boards.



No. 1.



No. 2.



No. 3. Stencil Border design for portiere.

STENCILS

Clifton Windsor White

THE stencils illustrated, designed by Clifton Windsor White, can be applied to leather and textiles, for table, cushion, and chair coverings, etc. The butterfly motive, No. 3, has been successfully used as a border along the bottom of portieres. This design could be put on, with or without enclosing lines, as preferred. One quarter of the stencils No. 1 and 2 suggest also a motive for border designs.

Practical suggestions for the application and uses of the stencil, will be found in the August issue.

MINERAL TRANSFERS

FOR CHINA DECORATION IN ALL ITS BRANCHES

SPECIMENS OF BUTTON DECORATION.



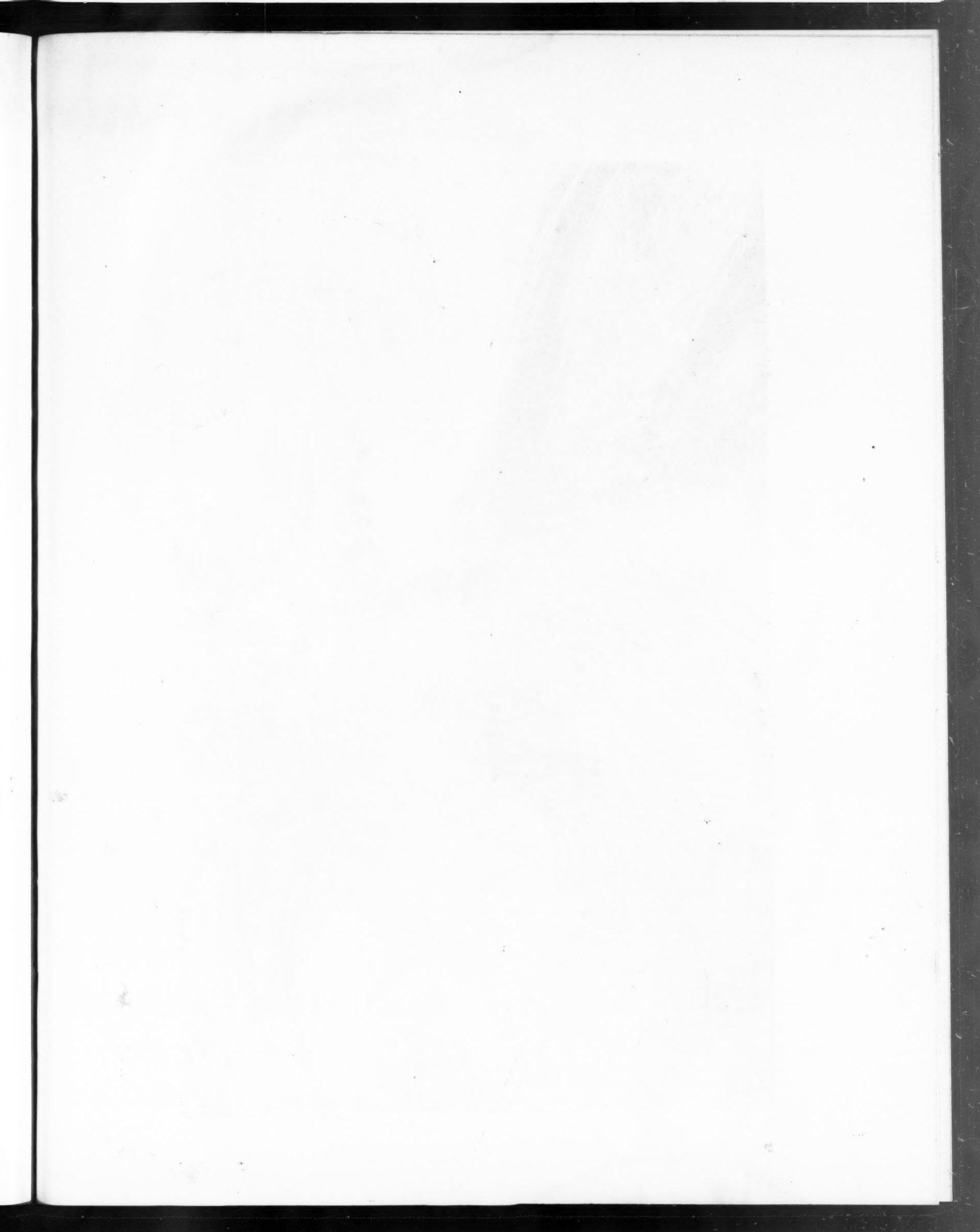
PALM, FECHTELER & CO.

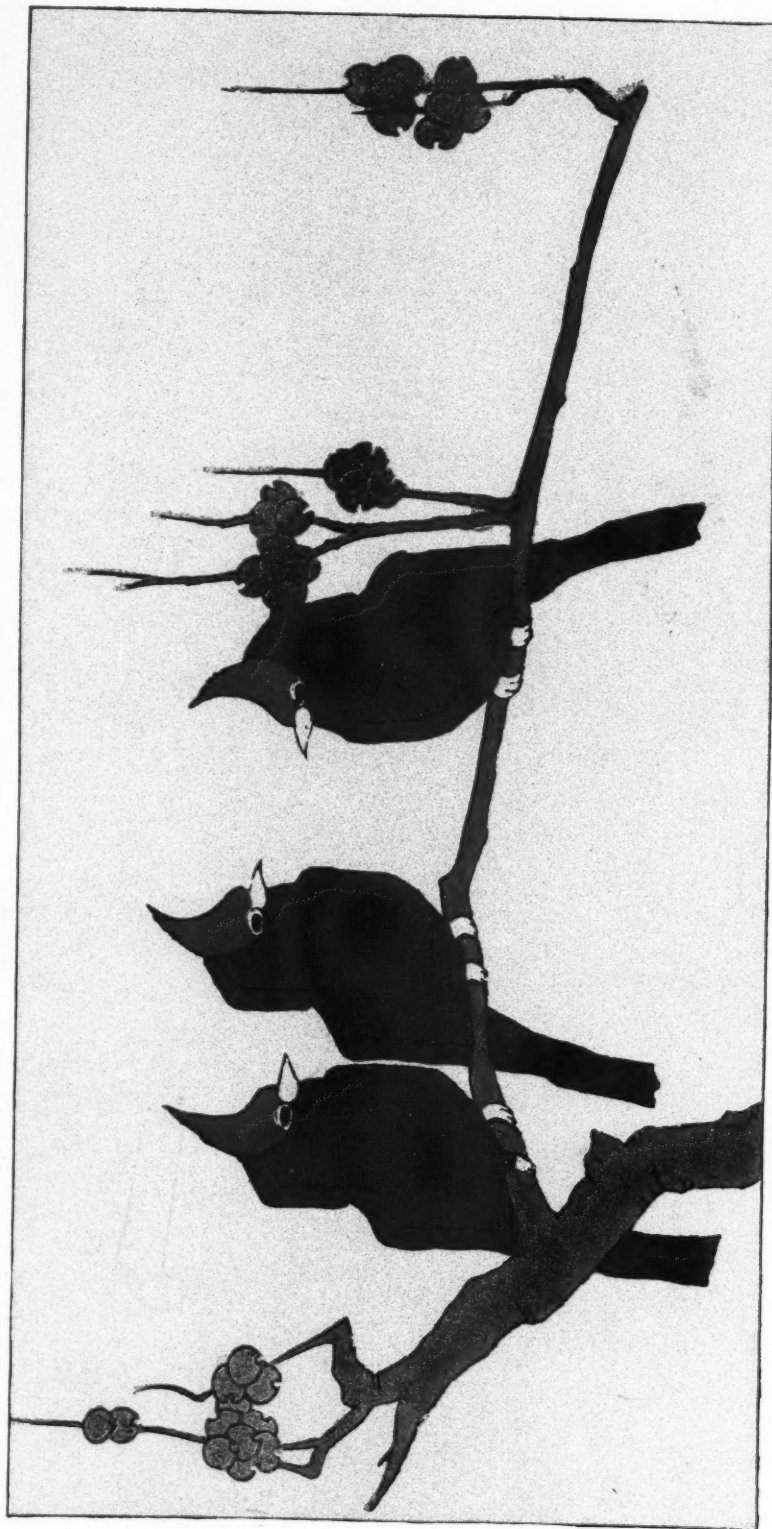
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**APPLY TO YOUR SUPPLY HOUSE FOR
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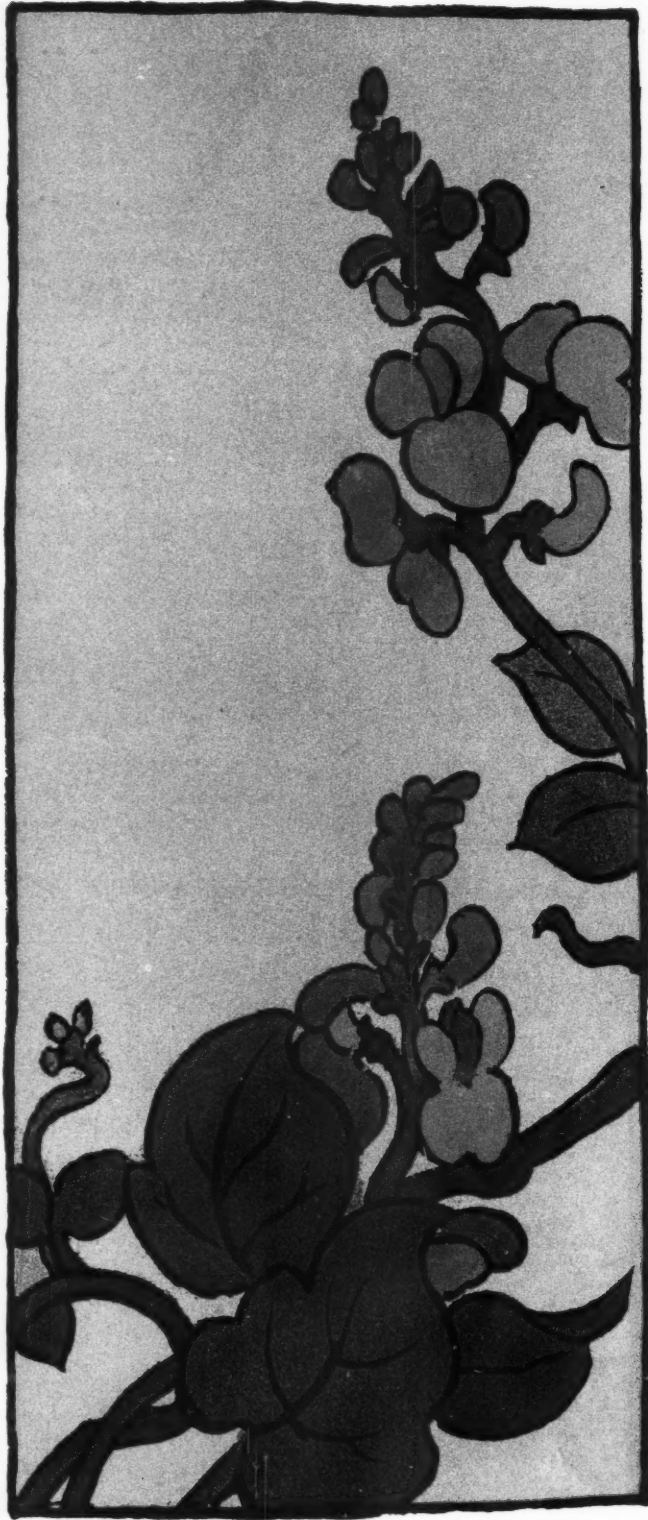




BIRD DECORATION FOR TILES--EDITH ALMA ROSS

DECEMBER 1904
SUPPLEMENT TO
KERAMIC STUDIO

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SCARLET BEAN--LETA HORLOCKER

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